ENGINEERS AUSTRALIA
Sydney Division

RTA

REPORT ON PLAQUING CEREMONIES
Pacific Highway, Hawkesbury River
Sunday 17 April 2005 at 1pm
Kangaroo Point

for

PEAT'S FERRY BRIDGE

as an Historic Engineering Marker
also
the 1930s Ferry Dock sites at Kangaroo Point and Mooney Mooney
and
Launching the RTA's self-guided tour brochure
Bridging the Hawkesbury River, Hornsby to Gosford

Opened on 5 May 1945

HORNSBY SHIRE COUNCIL

NATIONAL TRUST DIAMOND JUBILEE 1945 - 2005

GOSFORD CITY COUNCIL

Don Fraser, Engineering Heritage Committee, Sydney, April 2005

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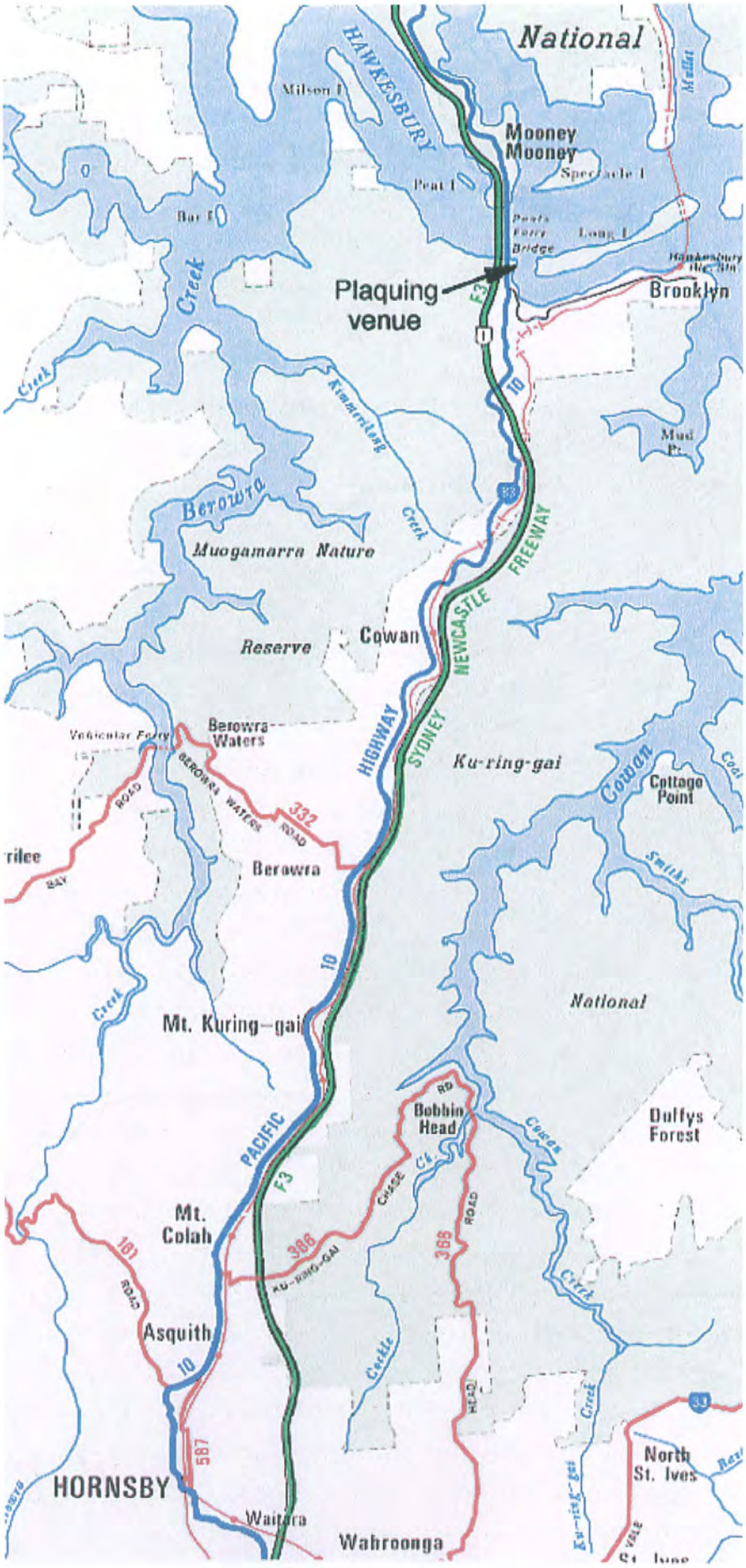
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ENGINEERS AUSTRALIA
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PLAQUINGCEREMONY
FOR

PEAT'S FERRY BRIDGE

Pacific Highway, Hawkesbury River

as an Historic Engineering Marker
Sunday 17 April 2005 at 1pm
Kangaroo Point

Opened on 5 May 1945

Access to site

1. Use Pacific Highway from Hornsby, venue is just before the bridge on the right.

2. Use the F3 from Wahroonga, cross the Hawkesbury River and take the Mooney Mooney exit on the left then take the right hand loop road under the F3 to join the Pacific Highway. Turn right and follow the Pacific Highway (DO NOT TAKE THE SLIP ROAD BACK ONTO F3) back across the river, venue is on the left just after leaving the northern end of the steel truss bridge.

Parking

The venue is a public viewing area and there is a marina nearby so parking in the venue area may be limited. However there is a rest area further towards Sydney. We hope to have RTA Marshals on duty.

Creative Conservation Conference

9th May 2005
National Trust Centre - Observatory Hill, Sydney

The Creative Conservation conference seeks to examine whether in design terms there is a real difference between 'heritage' and 'architecture', and asks why the bigger projects continue to draw on both the 'architect' and the 'heritage architect'.

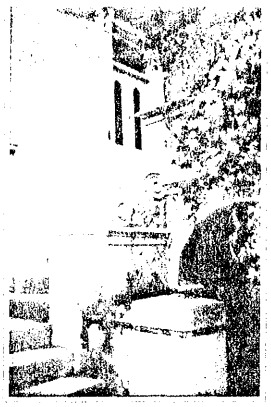
Is our architectural education in the context of the historical environment failing us? Do the words we use alienate or illuminate and do they identify the members of the 'heritage club'?

The conference key note speaker is **Shane de Blacam** from de Blacam and Meagher, Dublin. Other speakers include **Professor Tom Heneghan**, Professor of Architecture at the University of Sydney, **Tim Greer**, Partner at Tonkin Zulaikha Greer, **Jacqui Goddard**, Conservation Director, National Trust of Australia (NSW) and **Susan Macdonald**, Assistant Director, NSW Heritage Office.

Conference Fee: $160
Concession: $145
Special Student Price: $50
For enquiries, bookings, registration or submission of papers please call Mara Barnes on 9258 0161 or email at conference@nsw.nationaltrust.org.au

'Community in Focus'

The National Trust (NSW) Photography Competition

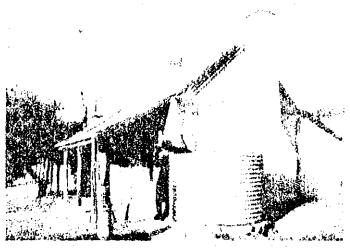


2004 Building Connections Photography Competition Miss Traill's House Bathurst People's Choice Winner: *Hatherly entrance detail* by Graham Lupp

Dust off your camera and help us celebrate our sixtieth anniversary by capturing the passionate and dedicated individuals, groups and organisations that share the National Trust's ideals about preserving our heritage.

Regional finalists' entries will be exhibited at either a National Trust property or community venue during the Heritage Festival with a prize awarded in each region. Winning entries will be exhibited at the National Trust Centre, Sydney and published in the National Trust magazine reflections. Regional finalists will be in the running for a $1500 gift voucher from one of Sydney's premier photographic specialists, Georges Electronics, and the winning image will be reproduced on a postcard with acknowledgement.

For more information on the theme, regional sites, prizes and conditions, call your closest participating National Trust property (see details in the first section of the program, denoted by the ● symbol). Or visit www.nsw.nationaltrust.org.au to download an entry form and for more information. Entries close 30 March 2005.



2004 Building Connections Photography Competition Winner: *Day Break* by James Ghata

Proudly sponsored by:

GEORGES cameras · computer · HI - FI

Plaquing Historic Peats Ferry Bridge

SUNDAY 17 APRIL 2005
1.00PM

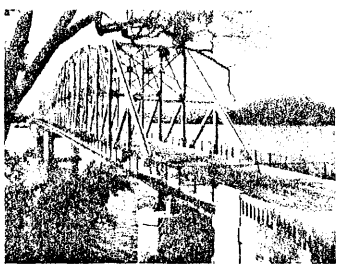
Kangaroo Point, Brooklyn

The NSW Roads and Traffic Authority (RTA), Engineers Australia, Hornsby Shire Council and Gosford City Council will plaque Peats Ferry Bridge as a Historic Engineering Marker in celebration of its 60th anniversary of service.

The event will also feature the plaquing of Peats Ferry Docks at Kangaroo Point and Mooney Mooney Point, along with the launch of the RTA's latest self-guided heritage tour brochure *Bridging the Hawkesbury: from Hornsby to Gosford* in recognition of the 75th anniversary of the opening of the Hornsby to Gosford road.

This is a free event with afternoon tea included. For enquiries: 0413482624

RTA
Roads and Traffic Authority
www.rta.nsw.gov.au



Australian Icons Framed

From a jar of Vegemite to the landmark Sydney Opera House to the bouncing kangaroo, Australia's icons have shaped our country's heritage and embodied the Australian spirit.

Some of Australia's most prominent artists will be invited to explore and capture the very essence of our country through the theme of 'Australian Icons Framed'. As a personal tribute to the spirit of Australia, the artist's interpretation of the 'icons' theme will be his or her own.

Collective efforts will then come together in June 2005, for a National Trust gala dinner and charity auction which will provide the chance to bid for these unique pieces.

In celebrating the 60th anniversary of the National Trust, an Australian icon itself, this gala charity dinner will raise funds for the continuation of the Trust's valuable work. For further information and bookings please call 9258 0129.

ACKNOWLEDGEMENTS

The event commemorated the 60th anniversaries of the Peats Ferry Bridge and the National Trust (NSW).

The combined plaquing ceremonies (Peats Ferry Bridge and remnants of the two 1930's Ferry Docks) and launch of the RTA tour brochure on Sunday 17 April 2005 at Kangaroo Point were very successful, well organised, well presented and well attended. This was due largely to the time and effort put into the planning since mid-2004 by Ken McNally, Special Projects Manager, RTA.

Engineers Australia's plaquing process was dealt with by Don Fraser, Engineering Heritage Committee, Sydney Division, Engineers Australia.

Valuable input was obtained from many sources,

The Mayors and staffs of Hornsby Shire Council and of Gosford City Council
Hornsby Shire Historical Society
Brisbane Water Historical Society Inc.
Dr Geoff Ford, author of the RTA's tour brochure
Mari Metzke, Royal Australian Historical Society.

VIPs present were, in order of appearance,

Cr Nick Berman, Mayor, Hornsby Shire Council
Cr Malcolm Brooks, Mayor, Gosford City Council
Neil Forrest, Asset Manager, Sydney Region, RTA
Norm Himsley, President, Sydney Division, Engineers Australia
The 14 descendents of George Peat
Janine Kitson, Board Director, National Trust (NSW)
and
Judy Hopwood MLA, Member for Hornsby, attended.

The activities were well recorded by RTA video cameraman Ross Frizelle and their photographer Geoff Ward – for future use in a video that will include clips from the movie film of the opening ceremony for Peats Ferry Bridge on 5 May 1945 – and for other promotional plans.

A delicious afternoon tea was supplied by CT's Coronation Café, Hornsby.

The RTA team did a splendid job in setting up and removing all the equipment and controlling the parking of visitors' vehicles.

Sincere thanks,

Don Fraser, May 2005

THE ENGINEERS

Howard Macoun SHERRARD prepared four preliminary designs in 1927 – half floating pontoons, half viaduct plus an opening span – a low level steel /concrete viaduct with an opening span – 4 high level steel trusses with a sloping viaduct – 6 larger trusses high level throughout. As illustrated the final design was 2 very large high level steel truss with a sloping viaduct. Sherrard was a long range road planner and extended bitumen pavements throughout New South Wales. He was Department of Main Roads Commissioner 1953-1962.

Spencer DENNIS graduated from Sydney University in 1909 and joined the Department of Public Works in 1913 and then transferred to the Main Roads Board in 1928 at which time he was working on Tom Uglys bridge construction. During his service as above and with the Department of Main Roads he was associated with over 1,000 bridges including major projects such as the Peats Ferry Bridge, Northbridge concrete arch, the lift bridges at Hexham and Batemans Bay and the Iron Cove Bridge, Sydney. The 1961 Pacific Highway bridge near Port Macquarie was named the 'Dennis Bridge'.

Frank LAWS graduated from Sydney University in 1922 and joined the Main Roads Board in 1926 and began working on bridge projects under H M Sherrard and later with Spencer Dennis. He wrote papers on bridge design for the in-house journal 'Main Roads'. He was involved in the design of some 200 Bridges including Peats Ferry, Narooma, Swansea, Raleigh and Iron Cove, Sydney. He succeeded Spencer Dennis as Bridge Engineer in 1951 and became Deputy Chief Engineer in 1957. He retired in 1962.

ENGINEERS AUSTRALIA
Sydney Division

RTA

PLAQUINGCEREMONY
FOR

PEATS FERRY BRIDGE

Hawkesbury River

as an Historic Engineering Marker
17 April 2005
Kangaroo Point

Opened on 5 May 1945

PROGRAMME

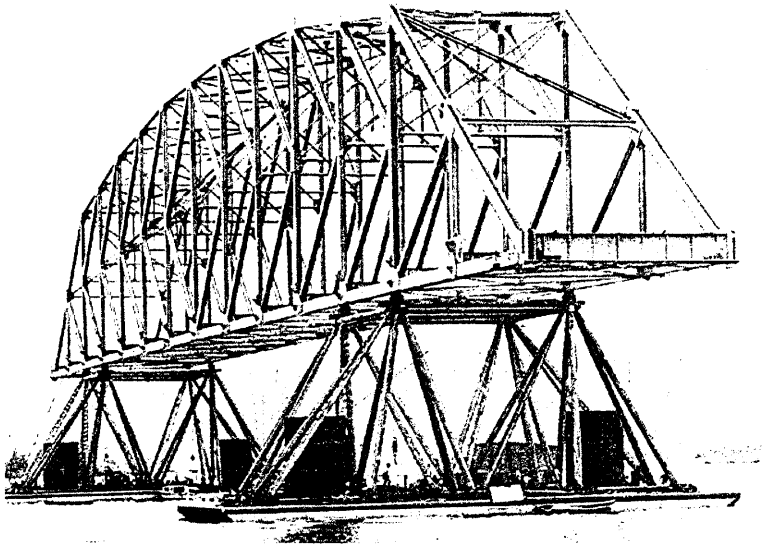
12.30pm	Kangaroo Point, Official Party assembles for final briefing
1.0 pm	Ken McNally, RTA, Introduction and welcome
1.05	Mayor Nick Berman, Hornsby, significance of ferries and bridge to Hornsby Shire
1.10	Mayor Malcolm Brooks, Gosford, significance of ferries and bridge to Gosford City and Central Coast
1.15	Neil Forrest, Asset Manager, Sydney Region RTA, the bridge we nearly didn't have
1.20	Norm Himsley, President, Engineers Australia Sydney - what is EA and its Historic Engineering Plaquing Programme
1.25	Unveiling the engineering plaque – photographs
1.30	Unveiling the Kangaroo Point Ferry Dock plaque by the Mayors
1.45	Unveiling the Mooney Mooney Ferry Dock plaque by the Mayors
1.50	Janine Kitson, Board Director National Trust, Diamond Jubilee of National Trust and of Peats Ferry Bridge. Launch of RTA brochure "Bridging the Hawkesbury – Hornsby to Gosford"
2.00	Distribution of this brochure, Close and Refreshments

PLAQUE CITATION

Engineers of the Department of Main Roads designed and supervised construction of this bridge which was opened on 5 May 1945, demonstrating significant technical achievement despite wartime constraints. Clyde Engineering fabricated the steelwork and Balgue Constructions built the bridge. It had the longest spans in the world using welded components and the main caisson pier was the second deepest in the world. The bridge consolidated the Pacific Highway as the road north from Sydney and boosted development of the Central Coast region.

The Institution of Engineers Australia and
Roads and traffic Authority, NSW 2005

THE BRIDGE



Typical floating out in 1944 of a large K-truss of the Peats Ferry road bridge

Any bridge across the drowned river valley of the Lower Hawkesbury River has to be a major engineering work. So it was for the 1889 railway bridge and its 1946 replacement, and for the 1945 road bridge and its adjacent 1973 Freeway bridge.

The Peats Ferry Bridge, built during the demands of World War II set world bridging records and had technical innovations that rank it as a work of significant engineering heritage. Planning began in 1926 to replace the under-capacity ferry services, private and government, for the increasingly busy and important Pacific Highway traffic. The successful tenderers were Balgue Constructions Co. for construction and bridge erection, and The Clyde Engineering Co. Ltd for fabrication.

The principal aspects of engineering significance are,

(1) the single caisson-pier at the junction of the two steel trusses was founded 241ft (73.5m) below low water level, the second deepest in the world.
(2) the extensive use of large welded members assembled by riveted joints.
(3) the K-trusses at 438ft (133.5m) span were the largest steel trusses for road bridgework in Australia.

Aesthetically, the bridge has good lines within the surroundings of the river valley, and socially it did provide enormous benefits for the east coast of Australia, particularly to communication north of Sydney and to the Central Coast of NSW, prior to completion of the Freeway bridge. It still has a valuable stand-by role.

PEATS FERRY PICTURES

Portion of attendees, total approx 150.

Welcome by MC Ken McNally, Special Projects Manager, RTA.

Cr Nick Berman, Mayor Hornsby Shire Council, spoke of the significance of Peats Ferry Bridge to the district.

Cr Malcolm Brooks, Mayor Gosford City Council, spoke of the significance of Peats Ferry Bridge to Gosford and the Central Coast.

Neil Forrest, Asset Manager, Sydney Region, RTA, spoke about the three caisson runs, the bridge we nearly didn't have. (Speech notes attached)

Norm Himsley, President, Sydney Division, Engineers Australia, spoke about Engineers Australia and its Historic Engineering Plaquing Programme. (Speech notes attached)

Neil Forest, RTA speech notes for the plaquing ceremony for Peats Ferry Bridge as an Historic Engineering Marker 17 April 2005

Good afternoon everyone.

As Asset Manager for the RTA's Sydney Region I know this bridge well, so I'll say a few words about it.

On 5 May, just two and a half weeks away, this grand structure has its Diamond Jubilee.

Unlike Queen Victoria, who died 3 years after her Diamond Jubilee, this bridge will see out another 60 years and more.

You'll notice from the layout of the bridge that its major components are on the south side of the river.

This is because the wide deep gorge of the drowned river valley runs along this southern side.

Even for a dry gorge, major bridgeworks would have been required to straddle it.

The rule-of-thumb for overall economy on sites like this is to have the cost of the substructure, the foundations, and the cost of the superstructure, the bridge, close to equal.

This led to the combination we see here today – one massive deep concrete pier near the middle of the drowned gorge, and two long-span steel trusses to reach the gorge edges.

The northern part of the bridge is on the upper level bank of the old river. It's relatively shallow so a routine steel and concrete viaduct was able to be built.

We can admire the bridge today, but we nearly didn't have a bridge.

During 1940-1942 they nearly lost the main caisson pier.

A caisson pier is essentially a large concrete tube with a bevelled steel base, the cutting edge.

By dredging internally and building up the concrete tube to provide more weight, the caisson pier steadily sinks into the river sediment..

Unfortunately river sediments are not uniform and on 11 April 1940 the cutting edge penetrated a week strata. The 4,000 ton. caisson plunged or 'ran' vertically 50 ft before stopping with its top still above the mud.

Failure seemed obvious.

But a recovery plan was devised.

With the top of the caisson accessible, it was decided to build another section of caisson, float it out and settle it down above the sunken section and make a concrete junction under compressed air working.

It was a unique solution and took a year to achieve.

But that wasn't the end of the 'runs'.

On 8 September 1941 a 30ft 'run' occurred but this time the top of the caisson finished at water level, so extending the concrete tube was easily achieved.

They say crises come in threes. The caisson was now 199 ft tall weighing 7,000tons when it 'ran' a third time, 28ft on 8 June 1942.

But his time it landed on bed rock.

The caisson was secure and the above-water pier was eventually completed in December 1943, a three and a half year effort.

The depth below low water is 241ft 4in, within 8 inches of the worlds deepest caisson on the Oaklands Bay Bridge, San Francisco.

The total height with its pier topping is 80 metres which is equivalent to a 20-storey building.

Well, after all the drama with the main pier, the steel trusses were routine.

They were assembled on temporary falsework where the northern viaduct now stands and were floated out into position on large pontoons, as shown in the handout brochure.

The trusses had to be very long to straddle the drowned gorge. At 440 ft overall length they were the largest road trusses in Australia. The K-trusses of the railway bridge are a few feet longer.

A feature of these Peats Ferry trusses was the use of welded components because ready-rolled steel sections were too small and riveted fabrication would have been too slow and too expensive.

If you walk across the bridge you'll see the clean simple construction with the neat runs of welds joining the component plates together. It's a much easier bridge to paint.

At 640 tons each, the trusses used the largest amount of welded components of any bridgeworks in the world at the time. It was pioneering technology for Australia.

Fabrication was done by Clyde Engineering, one of Australia's oldest heavy engineering companies. It began as Hudson Brothers in the 1880s. Typical of its continuing activities is the manufacture of diesel locomotives.

The RTA is proud of the Peats ferry Bridge and the work of its predecessor the Department of Main Roads and endorses the tribute on one of the earlier plaques,

> *This bridge was provided by the people of New South Wales for the use and convenience of man. It was built of Australian materials by Australian workmen and it stands as a monument to the skill and energy of its builders.*

Thank You.

Norm Himsley, President, EA Sydney, speech notes for the plaquing ceremony designating Peats Ferry Bridge as an Historic Engineering Marker 17 April 2005

Distinguished guests, ladies and gentlemen,

I'm pleased to represent Engineers Australia, which is the business name of the Institution of Engineers Australia, as President of its Sydney Division and to represent our Engineering Heritage Committee who administer our component of the Historic Engineering Plaquing Program.

And a warm welcome to my colleagues from north of the river in the Newcastle Division.

It's a pleasure once again to collaborate with the Roads and Traffic Authority in their contribution to the National Trust's Heritage Festival 2005.

Engineers Australia is the professional body for in excess of 70,00 engineers across all disciplines .

It has a broad spread of objectives, such as

- Promoting and advancing the science and practice of engineering
- Encouraging the development of Australia's technical capacity and its contribution to economic growth
- Providing advice on policy input on engineering and technology to Governments, and
- Providing services to members – continuing professional development, graduate development programs, among many others., and
- Provide administrative support for specialist groups of engineers to promote their disciplines.

One such special group is Engineering Heritage Australia which focuses attention on the historical contributions of engineers and provides a public face to their achievements for the common good.

Such as this magnificent bridge.

Three relevant engineers are noted in the Ceremony Brochure.

Other famous names in the field of bridges are John A McDonald, Percy Allan, E M de Burgh, Harvey Dare and J J C Bradfield. The first four have types of timber truss bridges named after them and Bradfield, of course, is synonymous with the Sydney Harbour Bridge.

In order to advance the recognition of engineering achievements, Engineering Heritage Australia and its network of Committees uses

- Plaquing events, as we are today
- Guided tours, the Sydney Committee runs a successful series each year
- Conferences, as will happen here in Sydney in late September, and
- Encourages the conservation of historically significant works.

The Roads and Traffic Authority is to be commended for its well developed program in heritage matters.

It has a large population of historic bridges dating back to its antecedents, the Roads and Bridges Branch of the Public Works Department, the Main Roads Board and the Department of Main Roads.

Many historic bridges have been plaqued – the most recent being at St Albans, Picton, Swan Hill and Barham,

and many are on the State Heritage Register.

Local Government too has begun to recognise the cultural significance of its historic infrastructure, the most recent was in Bourke last December when Bourke Council plaqued its 1883 lift bridge on the Darling River, the oldest bridge of its type in Australia.

The Historic Engineering Plaquing Program has been running for 20 years and 106 works have been plaqued nation-wide.

There are two levels of awards.

For works of National significance, there is the National Engineering Landmark.

Sydney Harbour Bridge, the Parkes Radio Telescope and the Snowy Mountains Scheme are outstanding examples , and there are 27 others.

For works of regional significance, there is the Historic Engineering Marker.

So far there have been 72 such awards, and their scope is diverse.

For example – Howard's Rotary Hoe, Lithgow Blast Furnace, Sydney's Tramway Museum, Locomotive 3801, Medlow Bath Dam, Wollongong Harbour and the Centenary of Sydney's Street Lighting in July last year – to name just a few in New South Wales.

Peats Ferry Bridge, with its 60 years of service, its technical merits and social significance adequately qualifies for inclusion.

The plaque citation is,

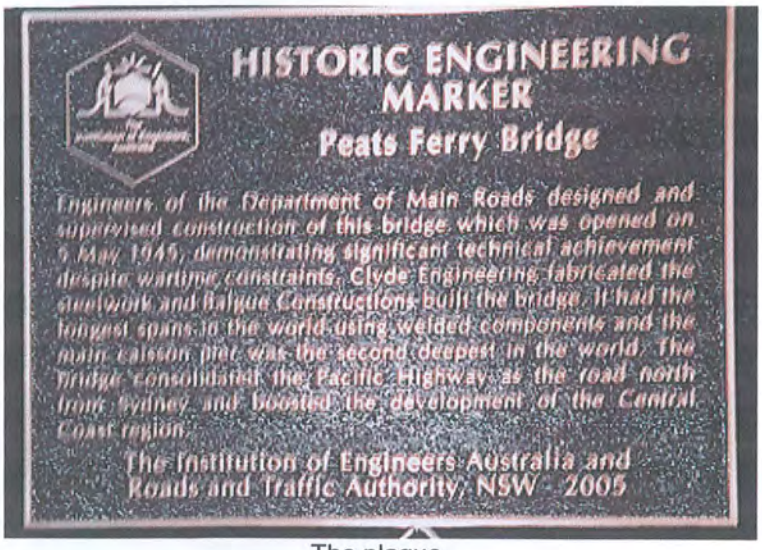
Engineers of the Department of Main Roads designed and supervised construction of this bridge which was opened on 5 May 1945, demonstrating significant technical achievement despite wartime constraints. Clyde Engineering fabricated the steelwork and Balgue Constructions built the bridge. It had the longest spans in the world using welded components and the main caisson pier was the second deepest in the world. The bridge consolidated the Pacific Highway as the road north from Sydney and boosted the development of the Central Coast region.

The Institution of Engineers Australia and
Roads and Traffic Authority, NSW 2005

I formally declare the Peats Ferry Bridge to be an Historic Engineering Marker and invite the Official Party to join me in unveiling the plaque.

Peats Ferry Bridge plaque unveiled by Cr Brooks, Neil Forrest, Norm Himsley and Cr Berman.

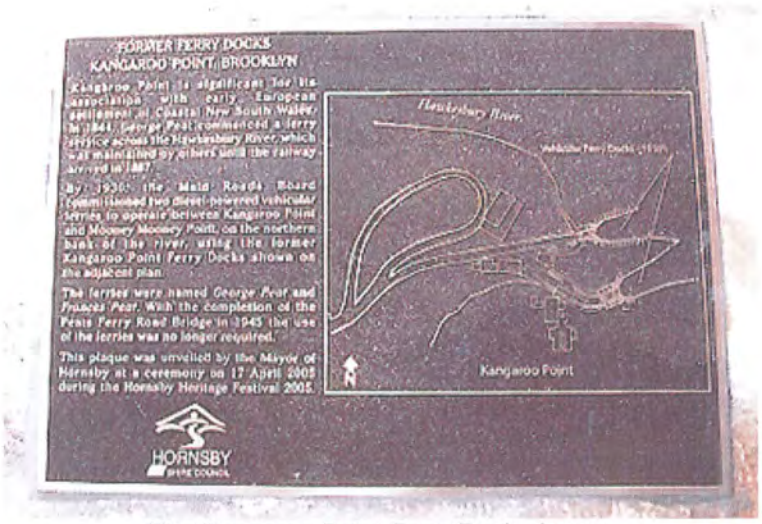
History group – Dr Geoff Ford (author of the RTA's tour brochure) – Patricia Dewey (President, Hornsby Shire Historical Society) – Mari Metzke (ARHS) – Janine Kitson (Board Director, National Trust) – Elaine and Stan Fry (Brisbane Water Historical Society Inc).



The plaque.

Site of the plaque commemorating the 1930s Ferry Dock at Kangaroo Point.

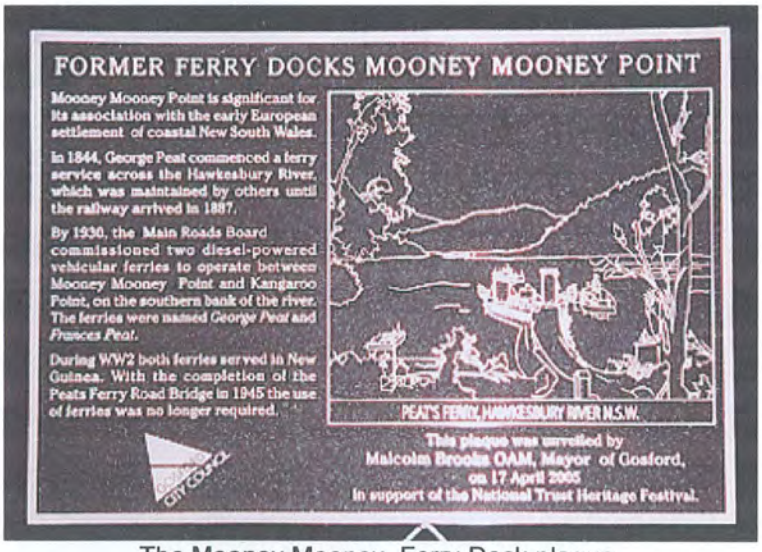
Kangaroo Point Ferry Dock plaque unveiled by Cr Brooks, Neil Forrest, Norm Himsley and Cr Berman.



The Kangaroo Point Ferry Dock plaque.

Group of George Peat descendents includes Peter Lynch and his children Matilda and Hugo, Dr Jack Wetherall, Elva Stubbs, Helen Stewart, Tom Hammond, Fran Jones, Elizabeth Wright, Phil Stubbs, Marie Williams, Greg Williams, Stephen Peat. Victoria Peat missed the photo take.

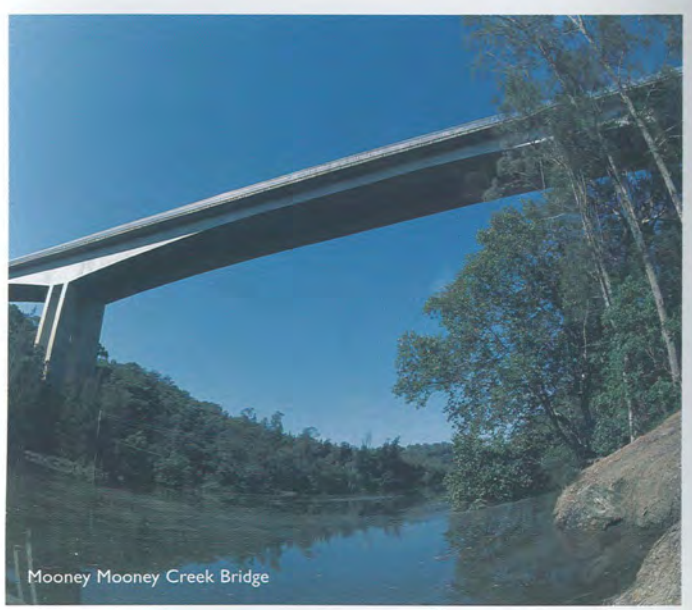
Commemorative plaque for the Mooney Mooney Ferry Dock unveiled by Cr Berman and Cr Brooks.



The Mooney Mooney Ferry Dock plaque.

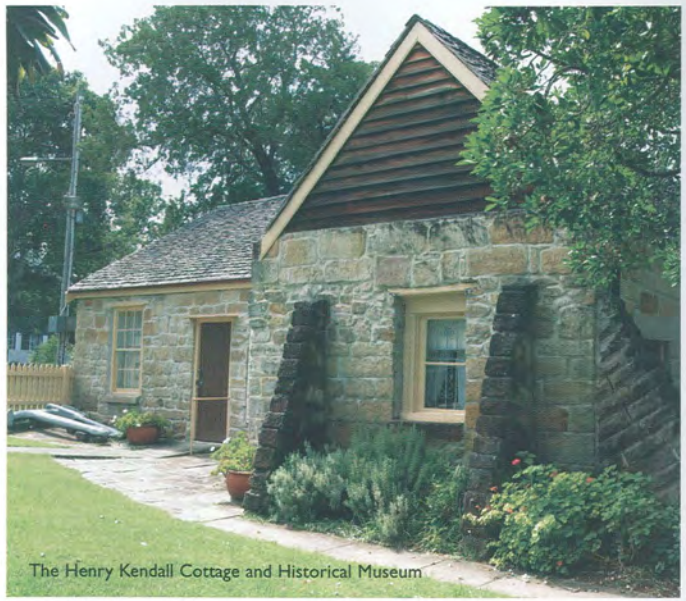
Janine Kitson, Board Director National Trust (NSW)
launched the RTA's self guided tour brochure
Bridging the Hawkesbury River, Hornsby to Gosford.

The marquee where a delicious afternoon tea was served,
catered by CT's Coronation Café, Hornsby.



Mooney Mooney Creek Bridge

Somersby expressway bridge



The Henry Kendall Cottage and Historical Museum

Alternately the original motor car route from Gosford to Sydney can be taken by following the Narara Valley Drive and turning west into Mangrove Road to join Dog Trap Road. The **concrete beam bridge (22)** which took Peats Ridge Road expressway across old Mangrove Road can be inspected by taking this route.

Turn left to **Somersby (23)** and at the Old Somersby Interchange, Peats Ridge Road expressway is on the right. The three expressway prestressed concrete bridges, at the Somersby and Mangrove interchange and at the crossing of Wisemans Ferry Road, were built in 1962-63.

Peats Ridge (24) was once home to the famous 1965 *OAK* milkbar. Every week, 35 staff served over 7000 'Oakshakes' to thirsty truckies, travelling families and passengers from 150 different buses. The milkbar closed in 1986 when Mooney Mooney Creek Bridge opened, marking the end of an era.

Peats Ridge Road leads back to **Calga (13)**, where the tour ends by rejoining the F3 Freeway or Pacific Highway and returning to Hornsby.

Text: Dr Geoff Ford on behalf of the RAHS.
Peats Ferry Road photograph courtesy of Hornsby Council Library.
Gosford Wharf photograph courtesy of Gosford Council Library.

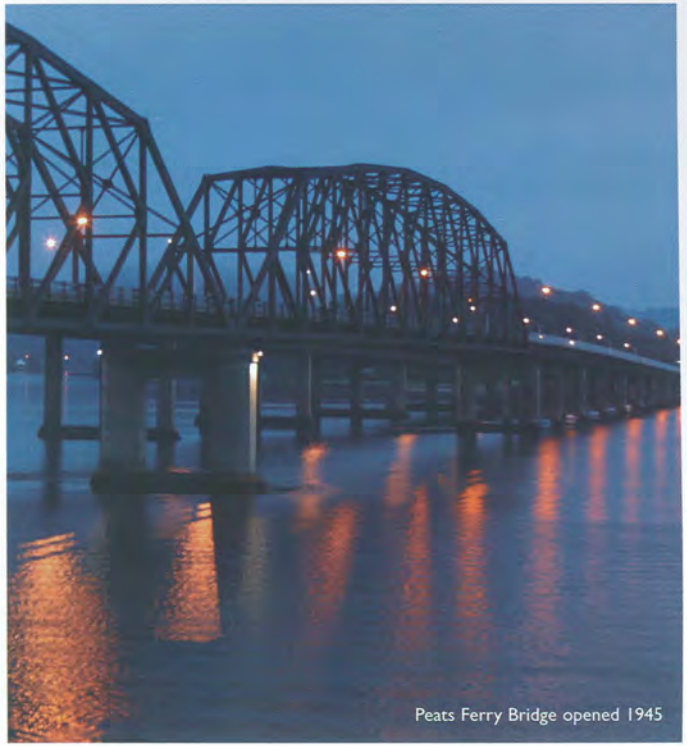
13 Calga
14 Mooney Mooney Creek
15 Girrakool
16 Devils Elbow
17 Henry Kendall Cottage
18 Gosford township
19 Kariong Hill Lookout
20 Staples Lookout
21 Bulgandry
22 Concrete beam bridge
23 Somersby
24 Peats Ridge

RTA

Bridging the Hawkesbury River Hornsby to Gosford

Heritage Drives

SELF-GUIDED TOURS



Peats Ferry Bridge opened 1945

Self-guided tour

The Roads and Traffic Authority of NSW (RTA), Engineers Australia (EA) and the Royal Australian Historical Society (RAHS) have developed this self-guided heritage tour. It supports the National Trust Heritage Festival for 2005 with the theme 'Community and heritage - celebrating 60 years'.

The tour features the history of the 'Bridging of the Hawkesbury River' indicating heritage landmarks and road developments, and visits key historic river crossings between Hornsby and Gosford. On Sunday 17 April 2005 the RTA, Engineers Australia, Hornsby Shire Council and Gosford City Council plaqued Peats Ferry Bridge as a Historic Engineering Marker in recognition of 60 years of service.

Roads and bridges noted in this guide are used for traffic. You should only view them from safe locations.

For further enquiries:

02 8837 0151

www.rta.nsw.gov.au

Roads and Traffic Authority

March 05
RTA/Pub. 05.052

Toll at Peats Ferry Bridge

At **Cowan village** is the heritage railway platform and **Cowan Roadway Bridge (7)**, built over the main northern railway by Government Railways in 1908. This Monier arch bridge replaced the level crossing on the 1848 Peats Ferry Road. French gardener, Joseph Monier, developed reinforced concrete which was adapted by Germany for bridges. Only 30 bridges of this type remain in NSW.

As the Pacific Highway descends off **Govett Range (8)**, the original Peats Ferry Road continues inside Muogamarra Nature Reserve. The 1848 stone walls of this historic road can be viewed on Reserve open days in spring.

At river level, **Brooklyn's Rest Park reserve (9)** was the works site for Peats Ferry Bridge. Commuter ferries travel between **Brooklyn (10)** and Dangar Island, the works site for the first railway bridge over the Hawkesbury and the birthplace of Federation. On 1 May 1889 Sir Henry Parkes gave the first Federation speech here, commissioning the bridge to unite the colonies' transport ways.

In the 1830s, **Kangaroo Point (11)** was the southern landing of George Peat's ferry. Peats Ferry Bridge replaced Aboriginal canoes and vehicular ferries. There are commemorative plaques south of the bridge. Peats Ferry Bridge was built over the Hawkesbury River by the Department of Main Roads in 1945. It had the second deepest piers in the world at the time.

Across Peats Ferry Bridge is **Deerubbun Reserve (12)**, where wooden piles remain from ferries' northern docks. On the hill above was Peat's stone house Fairview, where a dirt trail leads to the **heritage grave (12)** of Peat's daughter Frances.

Past Brisbane Water National Park are **Calga (13)** and **Mooney Mooney Creek (14)**. Along the creek are views of heritage **Mooney Mooney Highway Bridge (14)**. In 1930, this Warren steel truss bridge was built by the Main Roads Board. The **Mooney Mooney Creek Bridge (14)** can also be seen here. In 1986 twin bridges over Mooney Mooney Creek were built with concrete box girders supported on concrete box columns. These have a deck height 75 metres above water - 16 metres higher than the Sydney Harbour Bridge!

Past **Girrakool (15)** take Wisemans Ferry and Gindurra Roads then Debenham Road to the **Devils Elbow (16)**, where a drystone wall supports the road inside the hairpin bend.

Henry Kendall Cottage (17) in West Gosford is actually Peter Fagan's 1840 Red Cow Inn. Fagan's family befriended pioneer poet Kendall, who stayed here during a despairing period. A museum, owned and maintained by the Brisbane Water Historical Society Inc., now displays a range of historical items including the plaque from the *Frances Peat*.

Near **Gosford township (18)** is the historic Gosford Wharf. Past the wharf is the main street, Mann Street, which has numerous historic buildings and interpretive plaques.

Drivers returning to Sydney have a choice of two routes. One is to drive back up the Pacific Highway to view **Kariong Hill Lookout (19)** and **Staples Lookout (20)**. Nearby is the public Aboriginal art site, **Bulgandry (21)**.

1 Pearces Corner
2 Hornsby township
3 Gaslton Gorge Road Bridge
4 Mt Ku-ring-gai Highway Bridge
5 Heritage vehicular ferry
6 Motorway tollplaza
7 Cowan Roadway Bridge
8 Govett Range
9 Rest Park Reserve
10 Brooklyn
11 Kangaroo Point
12 Deerubbun Reserve

Gosford Wharf c.1910

Peats Ferry Road 1930

Galston Gorge Road Bridge

Historical overview

Sydney was settled by Europeans within the encircling Nepean-Hawkesbury River, which limited overland routes and meant that travellers had to be ferried across the river. The Hawkesbury was bridged in 1860 at North Richmond, but there was no bridge for the lower river until 1945!

In the early 1820s, merchant Solomon Wiseman took up land on a peninsula and established Wiseman's Ferry crossing, the point where the Great North Road crossed the Hawkesbury.

George Peat, Australian settler, knew the path travelled by the Guringai Aborigines and used it to mark a line-of-road from Sydney to Brisbane Water. In the early 1830s Peat established a ferry crossing at Mooney Mooney Point.

Governor Brisbane's promise that settlers at Brisbane Water would have road access to Sydney was honoured 20 years later when Governor Fitzroy approved Peats Ferry Road as the new North Road. By 1848, punts were used to ferry travellers across Hawkesbury River and Mooney Mooney Creek, as well as Narara Creek at West Gosford.

Peats Ferry crossings ceased in 1889 when the railway bridge was opened across Hawkesbury River. Peats Ferry Road north of the river was not maintained.

As motoring increased, traffic to Gosford crossed the Hawkesbury at Wisemans Ferry, continued up the Great North Road and down Mangrove Road to descend from Somersby to Gosford. Wiseman's Ferry Road beside the river through Spencer was not opened until 1934. This long route to cross the Hawkesbury River was as unsatisfactory as it had been 100 years before, so the Main Roads Board decided to reopen a public crossing at Peats Ferry.

Peats Ferry Road from Hornsby to Gosford was reconstructed as the Great Northern Highway. By 1930, a pair of motor vessel ferries, *Frances Peat* and *George Peat*, operated on the highway between Kangaroo Point and Mooney Mooney Point. The road from Sydney through Hornsby to the Hawkesbury became the Pacific Highway.

Peats Ferry Road Bridge was completed and opened in 1945. In 1965 a new motorway was opened as a tollway, starting with the climb up Peats Ridge from Mooney Mooney Point. This became the Sydney-Newcastle Freeway.

Steep climbs across the Hawkesbury River and Mooney Mooney Creek impeded road transport north of Sydney. In 1968 road levelling was complete from Berowra to Calga, with a new Hawkesbury motorway bridge opening in 1973. A road was built from Calga along Peats Ridge to link up with the old Mangrove Road from Wisemans Ferry to Somersby.

The high level Mooney Mooney Creek Bridge was opened in December 1986. The toll was lifted in December 1988.

Heritage tour

This guided tour is from Hornsby to Gosford, based on the 1930s Pacific Highway and the 1960s Peats Ridge Road expressway bypass. The highway replaced the 1840s Peats Ferry Road.

Your tour begins at Pearces Corner

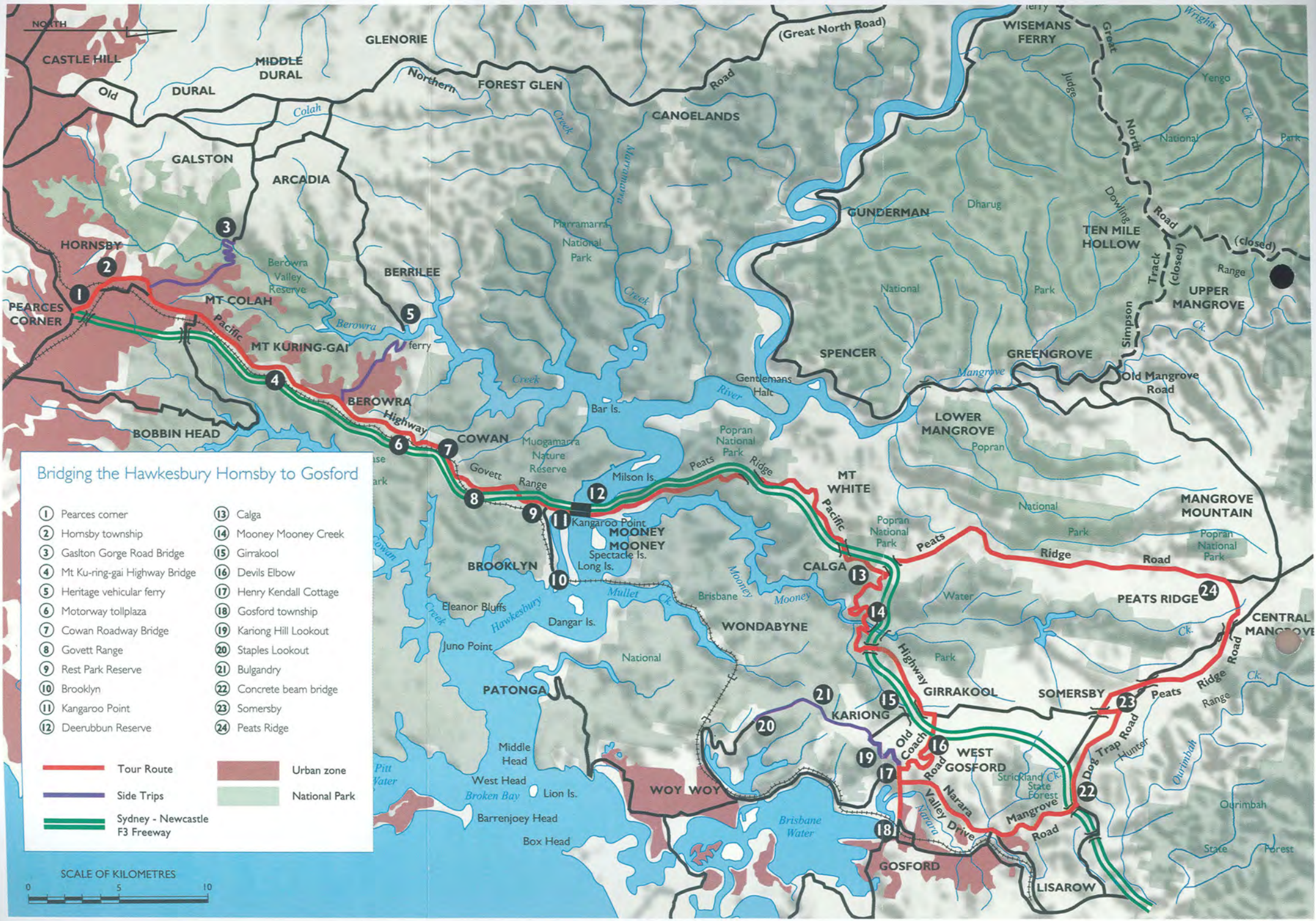
The 1930s Pacific Highway began at **Pearces Corner (1)**, where Pennant Hills Road and the present highway intersect. The highway leads to **Hornsby township (2)**, developed as a railway junction and originally named Jacks Island.

The **Galston Gorge Road Bridge (3)** is a McDonald timber truss bridge built in 1893, the last year that bridges of this type were built. This bridge is heritage listed and spans 20 metres. It is the smallest of its type and only four others remain in NSW.

The Pacific Highway continues along Govett Range, surveyed by William Govett in 1829. The dome of Mt Banks in the Blue Mountains can be seen from Mt Ku-ring-gai Railway Station.

Mt Ku-ring-gai Highway Bridge (4) was built over the railway by Government Railways in 1928. This jack-arch bridge was built from steel provided by Dorman Long Co., the company which also provided steel for the Sydney Harbour Bridge.

In Berowra, Tourist Drive 11 leads to Berowra Water and a **heritage vehicular ferry (5)**. Past Berowra are the 1968 **motorway tollplaza (6)** and heavy vehicle checking station, now a rest stop and fire spotting tower.


Bridging the Hawkesbury Hornsby to Gosford
1 Pearces corner
2 Hornsby township
3 Gaslton Gorge Road Bridge
4 Mt Ku-ring-gai Highway Bridge
5 Heritage vehicular ferry
6 Motorway tollplaza
7 Cowan Roadway Bridge
8 Govett Range
9 Rest Park Reserve
10 Brooklyn
11 Kangaroo Point
12 Deerubbun Reserve
13 Calga
14 Mooney Mooney Creek
15 Girrakool
16 Devils Elbow
17 Henry Kendall Cottage
18 Gosford township
19 Kariong Hill Lookout
20 Staples Lookout
21 Bulgandry
22 Concrete beam bridge
23 Somersby
24 Peats Ridge
Tour Route
Side Trips
Sydney - Newcastle F3 Freeway
Urban zone
National Park
SCALE OF KILOMETRES
0 5 10
NORTH
CASTLE HILL
MIDDLE DURAL
DURAL
GLENORIE
FOREST GLEN
CANOELANDS
(Great North Road)
WISEMANS FERRY
GALSTON
ARCADIA
HORNSBY
BERRILEE
MT COLAH
PEARCES CORNER
MT KURING-GAI
BOBBIN HEAD
BEROWRA
COWAN
BROOKLYN
MOONEY MOONEY
CALGA
MT WHITE
GUNDERMAN
TEN MILE HOLLOW
SPENCER
GREENGROVE
LOWER MANGROVE
UPPER MANGROVE
MANGROVE MOUNTAIN
PEATS RIDGE
CENTRAL MANGROVE
WONDABYNE
PATONGA
KARIONG
GIRRAKOOL
SOMERSBY
WEST GOSFORD
WOY WOY
GOSFORD
LISAROW
OURIMBAH
Berowra Valley Reserve
Marramarra National Park
Dharug National Park
Popran National Park
Muogamarra Nature Reserve
Strickland Ck. State Forest
Berowra Creek
Hawkesbury River
Brisbane Water
Mooney Mooney Creek
Mullet Ck
Narara Creek
Pacific Highway
Old Coach Road
Dog Trap Road
Peats Ridge Road
Old Mangrove Road
Mangrove Road
Narara Valley Drive
Great North Road
Wrights Track (closed)
Dowling Road (closed)
Judge Ck.
Yengo National Park
Simpson Ck.
Range
Gentlemans Halt
Bar Is.
Milson Is.
Kangaroo Point
Spectacle Is.
Long Is.
Eleanor Bluffs
Dangar Is.
Juno Point
Middle Head
West Head
Broken Bay
Lion Is.
Barrenjoey Head
Box Head
Pitt Water
Brisbane Water
Water
ferry

From: "Janine Kitson" <janine_kitson@tpg.com.au>
Date: Wed, 20 Apr 2005 17:03:00 +1000
To: <sydheritage@engineersaustralia.org.au>
Cc: "dami" <dami@civil.usyd.edu.au>
Subject: Congratulations to Engineers Australia for their Historic Engineering Plaquing Programme

To Mr Norm Himsley

President

Engineers Australia, Sydney Division

Dear Norm

Please accept my congratulations to Engineers Australia for their Historic Engineering Plaquing Programme.

Congratulations for all the work involved in the plaquing ceremony for Peats Ferry Bridge at Kangaroo Point, on Sunday 17 April, 2005.

I was delighted to be invited to launch the brochure "Bridging the Hawkesbury".

One of your members Ian Bowie kindly sent me the website address of Engineering Heritage Sydney. It really is fascinating and I am delighted to discover Engineers Australia's heritage website which I will definitely refer to in the future.

Congratulations again and I was thrilled to have the opportunity to learn more about engineering heritage.

Yours sincerely

Janine Kitson

Director

The National Trust of Australia (NSW)

The historical display of photographs and 1945 newspaper.

The Peats Ferry Bridge plaque is attached to the left (Sydney) end of the SW balustrade.